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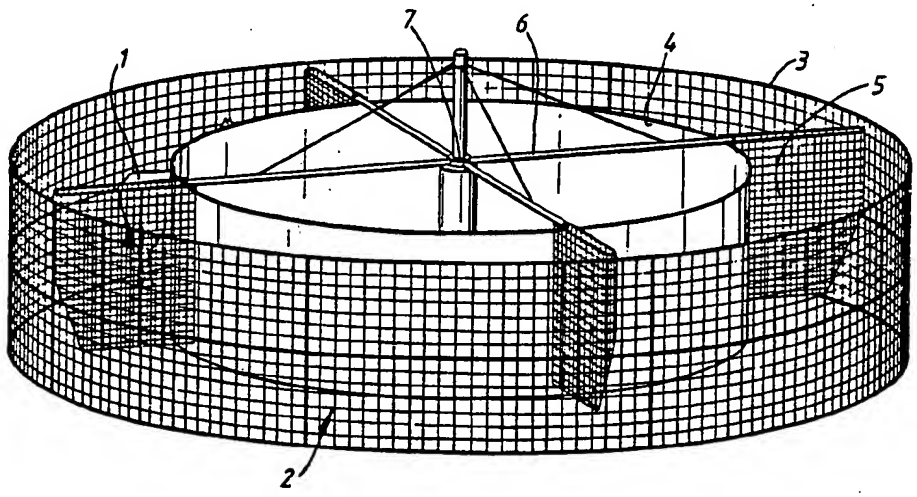
# (54) Exerciser for animals

(57) Apparatus for the exercise of animals, such as horses, comprises a circular walkway (2) between outer (3) and inner (4) walls, the walls being substantially concentric. The inner wall is made opaque and of a height so that animals in the walkway cannot see other animals through the inner wall.

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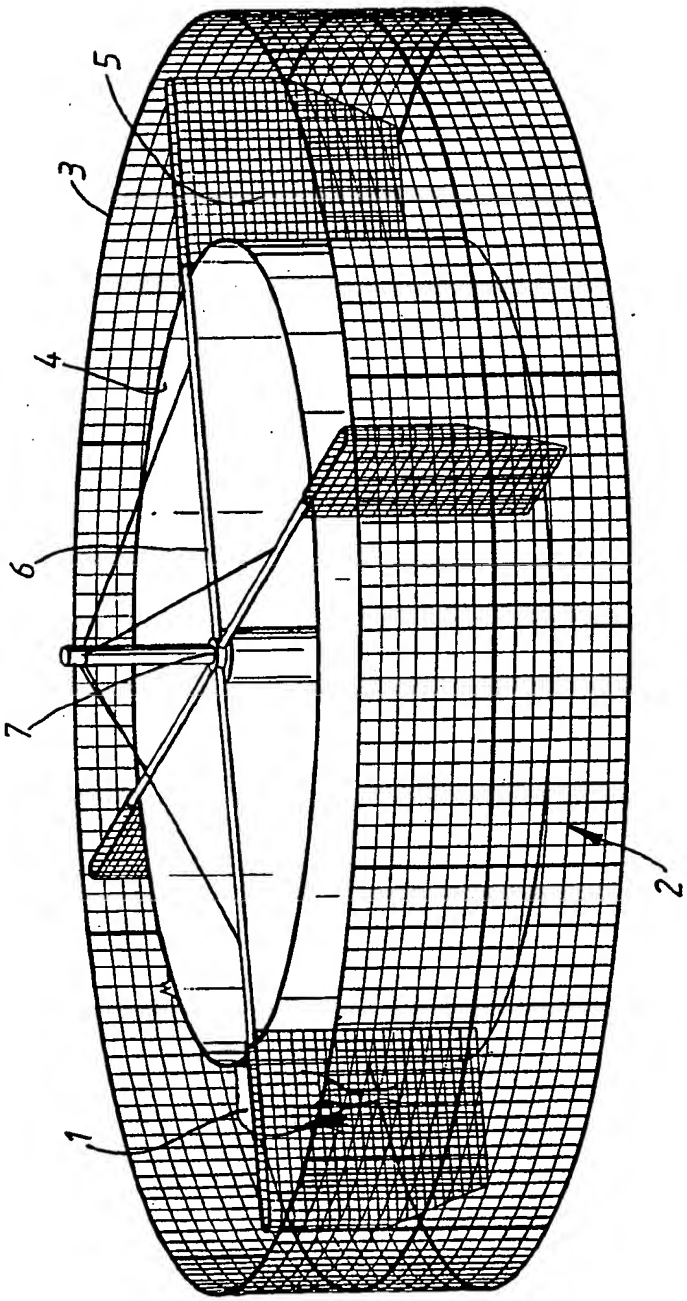
At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1990.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# EXERCISER FOR ANIMALS

The present invention relates to an exerciser for animals. The invention will be described with reference to its use for exercising horses, although, in certain circumstances, it may be used to exercise other animals.

It is known to provide horse exercisers which comprise a pair of concentric walls defining between them an annular walkway around which the horses or other animals may walk and thereby gain exercise. In order to encourage the animals to continue moving, a series of pushers are arranged in the walkway, separating it into a number of compartments, each adapted to contain one horse, and the pushers are connected to a central motor to rotate them and sweep the walkway at a predetermined speed. It is usual that the motor driving the pushers is an electro hydraulic motor with a hydraulic pressure relief to ensure that the pushers cannot cause damage to an animal should it be unable to keep up with the speed of the pushers. In normal use, the pushers simply urge the animal to walk on by gentle contact with the rear of the animal if it is moving to slowly.

It is usual to construct the walls of such an exerciser of light weight panels, which may be constructed of a steel frame work and wire mesh. However, this suffers a disadvantage that, if the horse should kick, as occasionally they are prone so to do, the wire mesh may break. This could leave jagged ends projecting which could cause damage either to the horses or the workers supervising

the exercise. It may require expensive replacement of at least one section of the damaged wall. If the inner wall rotates with the pushers, any damaged section continues with the horse that created it and, since such a horse may be assumed to be more likely to kick, the damage in a section may get rapidly worse. Even if the damaged wall is stationary, it still represents a hazard and ought to be replaced as soon as possible.

It has been found that the wall most likely to be damaged is the inner wall. It is thought that this may be because the horse in one compartment can see the horses in other compartments through the mesh inner wall. This may cause it to attempt to break through such a wall to reach its fellow horses.

Attempts have been made to overcome this problem by providing kicking boards on the inner wall, such kicking boards being adapted to withstand the blows of a horses hoof. This makes the sections of inner wall heavy and cumbersome and therefore the exerciser is more difficult to erect. It also makes it more expensive.

It is an object of the present invention to overcome the above difficulties and provide an exerciser for animals which is less likely to be damaged by the animals.

According to one aspect of the invention, this may be accomplished by providing an animal exerciser of the type described above in which the inner wall is opaque and of a sufficient height to prevent the animals normally viewing other animals within the exerciser.

Preferably, the inner wall is constructed of a smooth plastics material of non-frangible nature, such as polypropylene. The opaque, and therefore apparently solid, nature of the inner wall prevents view of other animals diametrically opposite within the exerciser, its opaque nature will deter the animal from approaching too closely, and its smooth non-frangible nature will prevent any

glancing blows with a hoof from damaging the inner wall.

According to another aspect of the present invention, there is provided an exerciser for animals comprising a fixed outer wall and an inner wall substantially concentric therewith, spaced to define between them a walkway for said animals, a plurality of pusher means separating said walkway into a plurality of compartments each adapted to contain an animal, rotary drive means located at a substantially central point of said walls, a plurality of radially extending arms each connecting said drive means to a respective pusher means, and wherein said inner wall is substantially opaque.

Preferably the inner wall comprises a plurality of lightweight sections adapted to be assembled together.

Each section may comprise a rigid frame and a covering of plastics material.

The frame may be of tubular metal, such as steel.

The plastics material is preferably at least partially resiliently deformable and non-frangible. A suitable material may be polypropylene or similar plastics material.

The inner wall is preferably fixed in position, although, alternatively it may be connected to said arms to rotate therewith.

An embodiment of the present invention will now be more particularly described by way of example and with reference to the accompanying drawings, the single figure of which is a perspective view of an exerciser embodying the invention.

The exerciser shown in the figure is intended for use with up to four horses, one of which is shown at 1. It is, of course, possible to accommodate more horses, such as six, if so desired, or to adapt the exerciser for use by other animals. However, for convenience, an exerciser for four horses will be described.

The horses walk freely around a circular walkway 2 defined between an outer wall 3 and an inner wall 4. The walkway is divided into four compartments, one for each horse, by means of pushers 5. Each pusher 5 is suspended at the end of an arm 6 which extends radially outwardly to the pusher 5 from a central point 7. At this point 7 is disposed an electro hydraulic drive means to rotate the arms 6 and thereby the pushers 5 at a predetermined speed. If a horse walks more slowly than this predetermined speed, a pusher at the rear of its compartment will catch up with the horse and gently urge it forward. If a horse is unable to, or determined not to, walk, the drive means will cut out by virtue of a release of pressure in the hydraulic system. Thus, the pushers should not injure a horse. Conversely, if a horse attempts to move faster than the predetermined speed, it will catch up with the pusher at the forward end of its compartment, where it will be deterred from advancing further since it would need to push this pusher with its head, which is not a natural action for horses.

As is conventional, the outer wall 3 is constructed of sections, each having a steel frame work and a mesh infill. However, it could be replaced by a wooden fence or some other convenient screening. Hitherto, the inner wall 4 has been constructed similarly of a steel frame work and mesh infill. However, this has caused problems and it is now preferred, as in the embodiment shown, to construct this inner wall 4 of plastics sheets on a metal frame work. The type of plastics material is not important, although polypropylene is presently preferred since it is easy to clean, sufficiently resilient to absorb light blows without breaking, and may be opaque. The sections are also light enough to be able to be transported easily and assembled on site.

As may be seen from the figure, the height of the inner wall 4 is sufficient to deter the horses, in their

usual walking stance, from seeing over it. Thus, a horse in one compartment cannot see the horses in the remaining compartments (with the possible exception of the one immediately in front of the horse, which can be seen through the mesh of the pusher 5 separating them). The horse is therefore not encouraged to attempt to breach this inner wall 4. Also, the opaque nature of the inner wall 4 makes it appear to a horse as being solid and it is therefore more likely that it will walk at a slight distance from the wall, and be less likely to attempt to damage it.

The wall need not be constructed entirely opaque provided that it satisfies the conditions of opacity in the general region of vision of the horses in their normal walking mode and of apparent solidity, as described above. Thus, a lower part of the wall need not be opaque.

Indeed, the invention has been described with reference to a fixed inner wall 4. In another embodiment, not shown, the entire inner wall 4 may be attached to the arms 6 for rotation therewith. In such a case, it is unlikely to reach the ground. In this embodiment, the lightness of the inner wall sections, being made of plastics sheet on a framework, is an added advantage.

Gateways may be provided in both the outer wall 3 and the inner wall 4, in the former case to allow ingress and egress of the horses and in the case of the inner wall to allow access to the drive mechanism.

CLAIMS:

1. Apparatus for the exercise of animals which comprises a pair of concentric walls defining therebetween an annular walkway for animals, wherein the inner wall is opaque and of a height to prevent animals in the walkway normally viewing other animals through the inner wall.

2. Apparatus for the exercise of animals which comprises a fixed outer wall and an inner wall substantially concentric therewith, spaced to define between them a walkway for said animals, a plurality of pusher means separating the walkway into a plurality of compartments each adapted to contain an animal, rotary drive means located at a substantially central point of said walls, a plurality of radially extending arms each connecting said drive means to a respective pusher means, and wherein said inner wall is substantially opaque.

3. Apparatus according to claim 1 or 2, wherein the inner wall comprises a plurality of lightweight sections adapted to be assembled together.

4. Apparatus according to claim 3, wherein each section comprises a rigid frame and a covering of plastics material

5. Apparatus according to claim 4, wherein the frame is of tubular metal.

6. Apparatus according to claim 4 or 5, wherein the plastics material is at least partially resiliently deformable and non-frangible.

7. Apparatus according to any preceding claim wherein said inner wall is fixed in position.

8. Apparatus according to claim 2, wherein said inner wall is connected to said arms to rotate therewith.

9. Apparatus according to claim 1, wherein the inner wall is made of a plastics material.

10. Apparatus according to claim 9, wherein the inner wall is of a smooth plastics material of a non-frangible nature.

11. Apparatus according to any preceding claim for the exercise of horses.

12. Apparatus for the exercise of animals substantially as herein described with reference to the accompanying drawing.

13. A method of making an animal exercise apparatus which includes a pair of concentric spaced walls defining an animal walkway therebetween, wherein the inner wall is made opaque and of a height such that animals in the walkway cannot see other animals therein through the inner wall.

14. A method according to claim 13, substantially as herein described.

**Patents Act 1977**
**Examiner's report to the Comptroller under Section 17 (The Search Report)**

Application number: 9023333.9

**Relevant Technical fields**

(i) UK Cl (Edition K ) A1M (MCA, MFF, MFH)

(ii) Int Cl (Edition 5 ) A01K

Search Examiner: K J KENNETT

**Databases** (see over)

(i) UK Patent Office

(ii)

Date of Search: 19 DECEMBER 1991

Documents considered relevant following a search in respect of claims 1-14

| Category (see over) | Identity of document and relevant passages | Relevant to claim(s) |
|---|---|---|
| | None | |

SF2(p)

| Category | Identity of document and relevant passages | Relevant to claim(s) |
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